

Article

Holistic Learning Versus Instrumentalism in Teacher Education: Lessons from Values Pedagogy and Related Research

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Abstract: This article constitutes a literature review, focusing on the idea of holistic learning, as found in key sources, and its essential contrasting with instrumentalist approaches to learning. It will move to explore updated research on holistic learning factors, with special attention to insights gleaned from values pedagogy and the research that underpins it. The article will juxtapose those insights with the instrumentalism that, it will allege, too often dictates teacher education directions. The article will conclude with an argument that teacher education has become, in modern times, a service industry, too often serving the agendas of governments and teacher unions, rather than preparing teachers to follow the guidelines provided by the latest research into student wellbeing and societal betterment. The article will focus especially on a number of Australian examples to mount the argument that nonetheless applies more generally across Western domains.

Keywords: holistic learning; instrumentalism; values pedagogy; teacher education; Australian education

1. Introduction

One can reasonably trace notions of holism in education to the ancient Persians, Arabs and Greeks, and certainly to the great Muslim thinkers of Islam's Golden Age. In more recent times, educational innovators like John Dewey, Maria Montessori, Loris Malaguzzi and Vasily Sukhomlinsky have either laid out the terms of holistic education or constructed exemplar sites that have demonstrated its greater effects. Coming at the issue of learning from a variety of standpoints, from philosophy to early childhood expertise, the common theme is that learning is not a singular function of a separable cognition but rather a phenomenon that derives best from all developmental measures being brought into play.

Modern neuroscience has, in many ways, provided the scientific evidence that supports such holism. Emotionality, sociality, morality, spirituality and the aesthetic senses are not detachments from the learning experience. They are part and parcel of it. The human function we refer to as cognition relies on all of these developmental measures in order to function optimally. Rationality is not apart from these elements of human development but rather part of them, as they are part of it. We think with our feelings, with our social, moral and spiritual impulses, and with our aesthetic senses. In their various ways, the above cultural traditions and scholars understood this holistic truth about learning and, in the case of some of them, founded the learning structures that proved it.

What has all this to do with teacher education is the key research question dealt with in this paper.

2. Instrumentalism in Western Education

The alleged instrumentalist disposition in Western education is well documented as one that afflicts modern regimes of schooling and teacher education [1,2]. It is a turn that defies the most

advanced conceptions of knowledge and the cognitive interests that drive them [3,4], including the indispensable role of imagination [5–8]. It furthermore flies in the face of current directions in the sciences generally [9] and education sciences more specifically [10–13]. The contention in this article is that this instrumentalist turn is not only out of touch with research in the sciences most applicable to education but that it renders Western education, and hence teacher education, less effective than it should be *vis a vis* the goals our society sets for it.

When Syed Muhammad al-Attas [14], the eminent Muslim educator, spoke of the risk faced by Muslim education in its interface with Western education, he identified two features that concerned him beyond all others. First was the way the relationship between teacher and student was conceived. Second was the imbalance between cognitive and other developmental measures, especially those concerning moral and spiritual development. He suggested that Western educational assumptions are too often built around more transactional notions of teacher-student relations and more pragmatic, outcomes-based aims rather than those pertaining to holistic human achievement and wellbeing. I believe any of the research perspectives noted above would attest to al-Attas's perceptions about what amounts to an unhelpful and arguably uninformed instrumentalism in Western education. Moreover, such concerns about Western education generally must have ramifications that a similar instrumentalism is likely to be found in Western teacher education.

3. Instrumentalism in Teacher Education

Ken Zeichner [15] identified three different philosophies of teacher education as they had functioned in the United States. They ranged from ones that supported extant notions of professionalism to those designed to challenge the status quo with the principal aim of instilling greater justice in schools and in the future lives of their students. Beyond the specifications he identified, the work was useful in illustrating that teacher education can and has been many different things, utilized at times for fundamentally divergent purposes, from those that are bound to the hegemonies of the day, what I refer to as instrumentalist in their essential purpose, to those that aim to disrupt in order to address inequities and improve the lives of education's clientele.

Paul Feyerabend [16] was critical of the ways in which education systems, including teacher education, had too often applied unimaginative instrumentalist assumptions to teaching. Ian Kidd (43) places Feyerabend in the same category as Michael Oakeshott and Martin Heidegger in seeing holistic learning being in place when education is conceived in terms of "releasement". By this term, he suggests '... that the purpose of education (is) not to induct students into prevailing norms and convictions, but rather to initiate them into the civilized inheritance of mankind (sic) [17] (p. 407).' The conception speaks to Enlightenment values, including around human rights, life and liberty, freedom of thought and speech, social justice and equity, in a word, to personal and communal wellbeing. Feyerabend's critique was not merely that instrumentalist assumptions resulted in poor educational practice but, moreover, that education was failing in its essential charter to advance the holistic wellbeing of the individual and address social ills in order to correct them. In this light, Zeichner's uncovering of divergent purposes of teacher education is more than merely of academic concern. It signals a struggle for the soul of teacher education.

One can see similar divergences of purpose in Australian teacher education over time. In some of its earliest manifestations in the colonial era, forms of teacher education, bare as they were, could be seen to be disruptive of the hegemonies that kept the poorer, largely convict-related classes uneducated and powerless, aiming to initiate what Kidd refers to as the "civilized inheritance of mankind". It was a teacher education, mounted onto an educational innovation, designed to make a difference, to improve the lives of individuals and bring effect to a more just and equitable society than was the extant. In the mid-nineteenth century, this applied especially to forms of Catholic teaching and teacher education in the hands of religious orders like the Sisters of St Joseph, a homegrown order of nuns trained to educate the poorer sections of society in order to improve their status and competitiveness [18–20]. In the secular sphere, the advent of trained female career teachers in the nineteenth century was itself

disruptive of the status quo in its day [21] as, in a sense was the establishment of “free, compulsory and secular education” for the entire population in the later part of the century.

Many of the various parliamentary Acts that established these regimes of “public education” can be seen to be replete with holistic personal and social agendas quite beyond instrumentalist ones concerned with basic literacy and numeracy. As an example, the New South Wales Public Education Act of 1880 [22] identified a range of educational goals suitable to the citizenry of the new nation being planned for the twentieth century. Among the goals were ones that saw all students, regardless of their heritage, being inculcated into full citizenry, including understanding the history and values that underpinned their society’s norms, legal codes and social ethics. In a word, the knowledge and values that the old order would have seen as residing properly and exclusively in the ruling classes were to be shared with the entire population, including the descendants of the convict class and Indigenous peoples. As if to reinforce the disruption to the old, colonial order, teachers’ colleges were set up in the early years of the twentieth century to ensure this new public education would be staffed by trained teachers with a charter to educate all sectors of society, including the poorest and those most alienated.

Nonetheless, for all of this heritage, teacher education in Australia has too often been characterized by instrumentalist aims and purposes, tending towards reactivity, rather than proactivity [23]. That is another way of saying it has tended too often to be a conservative industry, given to serving the needs of schools and their systems as they stand, rather than being in any way disruptive of their priorities and government-driven policies. As such, teacher education has become largely a service industry, serving teacher employment bureaucracies and the government hegemonies behind them, rather than being driven primarily by the social and emotional needs of students and the betterment of society, in the way of its heritage. Moreover, teacher education as a service industry can then be distracted from seeing and being guided by the latest research in what would seem to be its core business, namely, the optimization of learning.

4. Holistic Learning Factors: The Research That Should Be Driving Teacher Education

As indicated above, the notion of holism in education can be traced back to the Persians, Arabs and Greeks of ancient times, as well as the key scholars of Islam’s Golden Age [24]. The concept and reality can also be found in the works of key twentieth century educators, such as John Dewey [25–27], Maria Montessori [28], Loris Malaguzzi [29] and Vasily Sukhomlinsky [30], if not always using the language of holism. Late in the century and into the twenty-first century, the language of holism became more common. In recent times, the language has been found explicitly in a number of works. A name often associated with it is William Doll [31], a Habermasian scholar who warned that the ideas dominating in “modern” education were inadequate to the needs of the current world. They were built too much around old scientific paradigms of empirical certainties and cognition as separable from the rest of the person. We needed instead a “postmodern” paradigm built around new scientific conceptions of uncertainty and complexity, including of our understanding of cognition [10,11]. In other words, we needed to see the person and education of the person as a holistic enterprise. We find similar thinking in the works of David Marshak [32], who spoke of the organistic wholeness of the person, and John Miller [33] who coined the phrase “holistic curriculum” to capture the kind of teaching/learning needed to cater for the whole person.

Into this mix, and relying in part on the new thinking, came the report of the Carnegie Corporation’s 1994 Task Force on Learning. The report [34] served as a correction against an era wherein instrumentalist thinking and objectives had dominated teaching and teacher education in most Western domains [35,36]. Apart from prominent works around holism, especially in the curriculum, it reflected, and in some ways anticipated, emerging neuroscientific evidence that made revisioning of the understanding of cognition ever more compelling. For example, research insights from the works of Daniel Goleman [37], Robert Sternberg [38], Antonio Damasio [39], Howard Gardner [40] and Mary Immordino-Yang [12], among others, determined that cognition is inseparable from other developmental factors, including emotionality, sociality and morality.

Hence, a feature of the Carnegie Report was in its broadening those instrumentalist conceptions of cognition that had driven the art of teaching and teacher education down to what Lawrence Stenhouse [41] would refer to as “training and instruction” and Jurgen Habermas [3,4] would count as “empirical-analytic” ways of knowing, ones impelled by the cognitive interest in control, rather than knowing in the fullest sense. In both cases, these scholars were referring to low level cognition and associated practice, a cognition that Immordino-Yang and Damasio [42] would describe as ‘... disembodied systems, somehow influenced by but detached from emotion and the body [42] (p. 3).’ Stenhouse’s holistic learning conception involved “initiation” into a field of knowledge whereby the student, including the student teacher, would become effectively an artisan in that particular field:

... by virtue of their meaningfulness, curricula are not simply instructional means to improve teaching but are expressions of ideas to improve teachers. [41] (p. 68)

In other words, initiation in teacher education would see the future history teacher *become* a historian, the future science teacher a scientist, the future music teacher a musician, and so on. The fullness of knowing is in becoming and, in that respect, being initiated into “the civilized inheritance of mankind”. The fullness of knowing is, in Habermas’s words, a *praxis*, an action that effects change.

In justifying knowing as *praxis*, Habermas [3,4] broadened the knowing impelled by the cognitive interest in control to two further ways of knowing, referred to as “historical-hermeneutic” and “critical/self-reflective”. The former is driven by the cognitive interest in understanding meanings while the latter is impelled by the cognitive interest in emancipation. Emancipation connotes a desire to be a free agent of knowing while critical/self-reflective knowing, the epistemic result of the cognitive interest, denotes agency itself, being in command of one’s knowing, a conception not dissimilar to Stenhouse’s idea of initiation. For Habermas, this way of knowing provides for the only truly authentic human knowing, a profoundly moral knowing driving fearlessly beyond the politically correct, or safe knowing. Unlike empirical-analytic knowing, this is a knowing that requires human encounter and ultimately self-knowing. It also requires much in the way of imagination, including moral imagination and the attached emotional capacity. In his critique of the Enlightenment project, Habermas [5] suggests it has robbed us of ‘... the spontaneous powers of imagination, of self-experience and of emotionality [5] (p. 13).’

In many ways, Elliot Eisner grounded Habermas’s epistemology in the practice of teaching and teacher education. In his work titled, *The Educational Imagination* [43], he reacted to instrumentalist “reforms” that had robbed education of imagination. His interest was in restoring a sense of imagination to the ways in which curriculum is designed and effected. Eisner, an art educator, extrapolated from the knowing proper to art to make the point that feeling (emotion) and experience are entailed in knowing of any kind. In later work, Eisner [44] critiqued those dominant conceptions of cognition that focus overly on knowing devoid of feeling, a knowing that is all about verbal constructs, what he referred to as “discursive reductionism”, a secondary rather than primary form of knowing where knowing is assumed to be a product of discourse. For Eisner, it is the most reduced by-product of a narrow cognition that we fail to grasp the obvious truth that knowing precedes as often as follows from, and is always a little more than, the words that contain it. Eisner captures well the inherent limitations of instrumentalism and the damages it can do to learning.

For Eisner, this by-product afflicts both educational research and classroom practice. In terms of research, the affliction of discursive reductionism renders most projects as little more than technical exercises, producing volumes of fairly meaningless data, whereas his own methodology is termed “educational connoisseurship and criticism” [45]. Connoisseurship ‘... represents an effort to understand the meaning and significance that various forms of action have for those in a social setting [45] (p. 146).’ In terms of classroom practice, discursive reductionist instrumentalism limits curricula and their assessment to what is most easily known and testable, most likely ethnocentric, intolerant of difference and so prolonging injustice. In contrast, connoisseurship renders ‘... a

heightened awareness of the qualities of life so that teachers and students can become more intelligent [46] (p. 142).’ Mary Elizabeth Moore [47] proffers:

Eisner has offered a persistent critique of the over-dependence of education on science, modern technology and narrowly defined learning processes and content. He has spoken to the importance of artistry in teaching and the importance of educational imagination throughout the entire system of schooling. [47] (p. 138)

Similarly to Stenhouse’s sense of initiation and Habermas’s critical/self-reflective knowing, connoisseurship connotes the art of appreciation, the knowing that sees rather than merely looks, a knowing that draws on our values and commitments as much as our observations and descriptions. Eisner [44] speaks of the need for the learner to be immersed in the *experience* of knowing. This experience is ‘... derived from the material the senses provide ... and refining ... the senses [as] a primary means for expanding ... consciousness’. [44] (pp. 28–29)

An important allied contribution to breaking out of the instrumentalist bind and to the wider goals of learning is made by Max van Manen’s notions of “phenomenological pedagogy” [48] and “pedagogical thoughtfulness” and “pedagogical tact” [49]. Van Manen’s reputation is for being one of Habermas’s key interpreters, especially in making application of his epistemology to education. These pedagogical concepts serve to address the deficits of instrumentalist-bound education and to advance the goals entailed in achieving holistic learning. By these understandings, pedagogy must be sensitive to the lived experience of students, focused on interpreting this experience and so deepening student learning, including about themselves.

Drawing on this array of educationally innovative conceptions, the Carnegie Report [34] defined the range of learning skills necessary to the fullness of learning and, by dint of implication, to be properly incorporated in the training of teachers. It spoke of learning concerned with communicative and empathic capacity, reflectivity and self-management, emphasizing that effective learning unleashes within the learner the cognitive, affective and moral energies that engage, empower and effect deep learning, learning that goes far beyond that which can be achieved when instrumentalist aims and purposes are determining educational directions. Indeed, it was the narrow instrumentalist approach to teaching and teacher education that was blamed for students’ failure to achieve in spite of the vast resources that had been poured into teaching and teacher education in the USA.

In the spirit of the Carnegie Report, Fred Newmann and associates identified a range of teacher-related practices that research showed to be linked with holistic learning. The work centered on identifying the pedagogical dynamics required for what was termed “authentic pedagogy” [1]. Beyond some of the more instrumentalist practices, such as sound techniques, was one associated with the importance of the respectful relationship between teacher and student that ensures students feel accepted, understood and valued. Moreover, the ultimate pedagogical dynamic, a kind of *sine qua non* for holistic learning, was referred to as the “trustful, supportive ambience”. These are practices that echo the perspectives of John Dewey [50], Richard Peters [51] and David Carr [52], to name a few, that education is inherently a moral enterprise, that all education is moral education, in that sense. In Peters’ words, it is education where the “knowledge condition” and the “values condition” are in alliance. Such an alliance is deemed essential to achieving holistic learning.

In a similar way, Matthew Davidson, Vladimir Khmelkov and Thomas Lickona [53] speak of “moral character” and “performance character” being essential allies in the business of holistic learning. Their approach ‘seeks to maximize the power of moral and performance character by viewing character as needed for, and potentially developed from, every act of teaching and learning [53] (p. 428).’ Meanwhile, Karen Osterman’s [54] work refers to a cognition/affect/sociality nexus that enhances learning through environments where students feel they belong and experience a sense of emotional wellbeing. The nexus rests on teacher practice that emphasizes a balance between the teacher-student relationship and sound pedagogy. The teacher who has perfected this balance is the one most likely to optimize student learning. The teacher who has not perfected it will continue to oversee failure, both in

terms of student wellbeing and achievement. Jacques Benninga [55] provided empirical evidence of the effectiveness of the nexus in his work where enhanced performance in Californian basic skills test results was linked with the implementation of a moral development program. In a word, there is no achievement, no holistic learning, without the assurance of wellbeing. This is precisely the point at which instrumentalism and a values pedagogy collide.

5. The Collision of Instrumentalism and Values Pedagogy in Australia

Typical of most Western regimes, late twentieth century education in Australia was dominated by notions of instrumentalist competencies and outcomes [56]. These were largely premised on the need for schools to prepare young people for work and careers as their principal if not essential role. It was the combined effects of the likes of the Carnegie Report, along with the welter of research cited above, that led Australian authorities to pronounce a more holistic charter for Australian education in the form of *The Adelaide Declaration on National Goals for Schooling in the Twenty-first Century* [57]:

Australia's future depends upon each citizen having the necessary knowledge, understanding, skills and values for a productive and rewarding life in an educated, just and open society . . . Schooling provides a foundation for young Australians' intellectual, physical, social, moral, spiritual and aesthetic development. [57] (p. 1)

Attempts to walk back some of the holism and social betterment goals in such an educational charter, including for reasons related to new threats to global security occasioned by terrorist episodes in New York, Washington, Bali and Madrid, were resisted when the same body met a decade later and reinforced the holism of the declaration [58]:

Schools play a vital role in promoting the intellectual, physical, social, emotional, moral, spiritual and aesthetic development and wellbeing of young Australians. [58] (p. 4)

The curriculum will enable students to . . . open up new ways of thinking. [58] (p. 13)

An immediate product of this newfound holism took the form of the Australian Values Education Program [2003–2010]. The Program began with a pilot study in 2003 [59], followed by the development of a *National Framework for Values Education* in 2005 [60]. A range of attached research and practice projects took place from 2005 to 2010, the most crucial of which were the two stages of the *Values Education Good Practice Schools Project* (VEGPSP) [61,62] and the *Project to Test and Measure the Impact of Values Education on Student Effects and School Ambience* [63,64]. The National Framework cited the Adelaide Declaration [57] as underpinning the spirit and intentions of the program and also made the direct link between good practice pedagogy and the instilling of a safe, supportive environment for learning. In other words, again, the inescapable connection between wellbeing and achievement, between the knowledge condition and the values condition [51], between performance character and moral character [53], between cognition, affect and sociality [54] was reinforced. By such an understanding, holistic learning and values are seen not to be in opposition nor in any way options in the business of learning. They are two sides of the same coin, a veritable “double helix” [65].

VEGPSP [61,62] involved three hundred and sixteen schools from all sectors, constituting approximately 100,000 students, 5000 teachers and fifty university researchers. Fifty-one clusters, formed from these schools, collaborated in constructing an intervention focused on the Framework's core values statement. Each project was supported by a university researcher who oversaw the project and assisted in writing the cluster report. Many of the reports spoke of the enhanced calmness and improved behavior of and communication among students and between students and teachers. Reports spoke of the greater sense of reflectivity on the part of students, of their enhanced resilience and more apparent social skills, of improved relationships of care and trust between students and students and teachers, and of all of this resulting in demonstrated levels of enhanced academic diligence. The positive effects were shown across the range of educational goals, including emotional, social,

moral and spiritual ones, and furthermore how these impacted on academic diligence. The cognition required for academic achievement was shown to be inseparable from holistic development. Hence, the connection between values education and good practice pedagogy was demonstrated with sufficient clarity to impel the new language of “values pedagogy” being coined [23]. In a word, findings confirmed the double helix between values pedagogy and holistic learning, as evidenced by university researcher reports from each of the two stages of VEGPSP:

... by creating an environment where (the) values were constantly shaping classroom activity, teachers and students were happier, and school was calmer ... student learning was improving. [62] (p. 120)

Starting from the premise that schooling educates for the whole child and must necessarily engage a student’s heart, mind and actions, effective values education empowers student decision making ... students can be seen to move in stages from growing in knowledge and understanding ... to an increasing clarity and commitment ... and then concerted action in living those values in their personal and community lives. [61] (p.11)

The link between an explicit values pedagogy and holistic learning was further confirmed in the evaluation phase. The *Project to Test and Measure the Impact of Values Education on Student Effects and School Ambience* [64] was designed to test and measure all the reported claims being made in earlier phases, employing standard quantitative and qualitative instruments [63]. Claims that were verified by means of this extra layer of testing included the following:

improved environment ... increase in school cohesion ... clearer sense of purpose ... the creation of a safer and more caring school community. [64] (pp. 10, 89, 106)

The Executive Summary of the study included statements that attempted to explain the reasons why values pedagogy is found to be synergistic with holistic learning:

... as schools give increasing curriculum and teaching emphasis to values education, students become more academically diligent, the school assumes a calmer, more peaceful ambience, better student-teacher relationships are forged, student and teacher wellbeing improves and parents are more engaged with the school. [64] (p. 12)

Teachers perceived that explicitly teaching values and developing empathy in students resulted in more responsible, focused and cooperative classrooms and equipped students to strive for better learning and social outcomes. [64] (p. 14)

Thus, there was substantial quantitative and qualitative evidence suggesting that there were observable and measurable improvements in students’ academic diligence, including increased attentiveness, a greater capacity to work independently as well as more cooperatively, greater care and effort being invested in schoolwork and students assuming more responsibility for their own learning ... [64] (p. 6)

6. Ramifications for Teacher Education

In light of the above evidence concerning the effects of values pedagogy on holistic learning, one might ask why it is that teacher education has not shown more signs of adjusting to accommodate this kind of evidence. Answers to such a question are complex and one needs to be careful about generalizing around complex and variegated issues. Nonetheless, cautious generalization can be proffered.

For the most part, teacher education remains in our time a largely conservative, essentially service industry, known more for its reactivity than proactivity. Teacher education tends to remain firmly in the hands of government, with ministries of education controlling the criteria to be applied to what is deemed acceptable in teacher education programs, often applying a form of registration as a means of surveillance of the industry:

The NSW Education Standards Authority (NESA) works closely with tertiary institutions to assess teacher education courses. [66]

In such a circumstance, compliance to rather than disruption of government priorities and policies will be, in large measure, the order of the day. Unless an education minister or someone in their bureaucracy happens to have an eye for what is going on in holistic learning research, the tendency will be for the status quo to be maintained and sometimes for teacher education to become somewhat of a political tool, especially around election time. In this situation, the shape and form of teacher education will be determined by its sponsors and funders in government. The likelihood that these sponsors and funders will be responsive to the latest research, or even aware of it, is limited, to say the least. The chances for any individual teacher educator or group thereof to make changes to the teacher education curriculum, albeit guided by the weightiest of research, will be even more limited in such circumstances.

Second, teacher education, along with teaching as a profession, tends to be heavily unionized. Arguably, this is another layer of corporate life and bureaucracy whose prime task is to safeguard the rights of its members. For example, in its ethics statement, the New South Wales Teachers Federation has the following as its first four key principles:

1. Teachers and other educational personnel employed in any area of public education should be members of the New South Wales Teachers Federation and uphold Federation's policy.
2. Members should aim to improve the working conditions of all Federation members.
3. Members should be loyal to colleagues at all times and refrain from adversely criticising them in the hearing of the public or students.
4. Members should not take part in any undesirable competitions or activities which pit member against member and one school or educational institution against another in unhealthy rivalry. [67]

While such bodies might take up wellbeing and social issues as part of their charter, control and protection of the profession is invariably their first and overarching concern. Least of all is it characteristic of such bodies to be overly concerned with the latest research findings and insights about learning.

Third, teaching and teacher education are largely corporate entities, rather than being highly individualized, and this is seen in the way both employer and union bodies refer to them, as above. That is, teacher educators, like teachers themselves, work essentially as teams in large institutions, rather than on their own in private practice. As a result, surveillance and the need to conform to corporate requirements is arguably heightened when compared with other professions, such as medicine and law. These are all limitations on the power of individual teacher educators to disrupt the established order regardless of the injustice entailed in it or the weight of research evidence that rails against it.

The other factor that might explain teacher education's relative acquiescence to the established order is that its research base has been so largely dependent on research derived from its so-called foundational disciplines, especially psychology and sociology, rather than overwhelmingly classroom learning related research. As a result, teacher education has often been dependent on what we might refer to as borrowed findings, suitable perhaps to the foundational discipline *per se* but not always attuned to the realities of what is required in the actual learning site. There are exceptions to this phenomenon [68–70] but recourse to the foundational research remains strong in the literature that underpins much of teacher education as well as providing supposedly updated advice for practicing teachers [71–75]. Instances of this phenomenon are seen especially in those paradigms of learning concerned with linear stage, moral and sociocultural theories [76–79]. In spite of serious counter-research by the likes of Gilligan [80], Hoffman [81] and Zahn-Waxler et al. [82], Freudian, Piagetian, Vygotskian and Kohlbergian research has often presented as offering the most enlightened bases for the practical knowledge needed by the teacher.

Granted the above, a further problem for teacher education could be that the basis of its “foundations” has rested for too long on theories and research that relied on the kinds of cognition theories that neuroscience, epistemology and philosophy, as explicated above, have been challenging for some time. Moreover, challenges wrought by the kinds of practical classroom-based findings identified for values pedagogy have been slow to be incorporated into teacher education. The result is that instrumentalist thinking continues to dominate and the latest insights into holistic learning often carry less weight than should be the case.

7. Conclusions

The article has focused on updated research on factors related to holistic learning, exploring especially research insights gleaned from values pedagogy and associated research. The article has juxtaposed those insights with the instrumentalism that has tended too often to dictate teacher education directions. It is argued that this instrumentalism derives from a range of factors concerned with teacher education’s encasement in government-driven priorities and policies as well as its heavy reliance on research derived from its foundational disciplines, rather than from research emanating from live learning sites. This situation leaves teacher education less potent than it should be in producing the kinds of teachers needed to fulfil the elevated charter for schooling to offer holistic development to each student as well as address and redress social issues of inequity and injustice.

It should be noted that the article proffers to identify some weaknesses that persist in teacher education fulfilling what should be its essential charter, namely, to prepare future teachers to ply their trade on the basis of the most updated and assured research about the contexts in which and the methods by which young people’s learning is optimized. It is not intended to be critical of teacher educators themselves nor of any particular teacher education institute. Least of all is it intended to demean in any way the vitally important role that teachers and teacher educators play in the lives of their students. It is intended merely to press teacher education stakeholders, be they governments, unions, university heads, teacher education personnel, teachers or parents, to consider whether the thrust of teacher education is guided by the latest research into holistic learning for, according to the evidence, that is where its essential charter to advance individual wellbeing and social betterment will be realized.

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